

Amendments to the Specification:

Please rewrite the paragraph beginning on page 4, line 17 as follows:

The active element is contained in an amount ranging from 50 to 2000 $\mu\text{g}/\text{cm}^2$ or more preferably ~~400~~426.8 to ~~1000~~1358 $\mu\text{g}/\text{cm}^2$. Therefore, the absolute amount of the active element necessary to bond the components is sufficiently obtained for a required bonding strength.

Please rewrite the paragraph beginning on page 5, line 19 as follows:

The active hard brazing materials may be supplied between the pedestal, the heat spreader member, and the metal plate such that the active hard brazing materials have a thickness ranging from 3 to 20 μm when the active hard brazing materials are melted, and contain the active element in an amount ranging from ~~400~~426.8 to ~~1000~~1358 $\mu\text{g}/\text{cm}^2$, and wherein the active hard brazing material may be supplied between the insulating board and the metal plate such that the active hard brazing material has a thickness ranging from 3 to 20 μm when the active hard brazing material is melted, and contains the active element in an amount ranging from 50 to 1000 $\mu\text{g}/\text{cm}^2$.

Please rewrite the paragraph beginning on page 6, line 4 as follows:

According to the present invention, there is also provided a heat spreader module constructed by supplying active hard brazing materials each containing an active element, between a pedestal, a heat spreader member, an insulating board, and a metal plate, and pressing and heating the pedestal, the heat spreader member, the insulating board, and the metal plate to melt the active hard brazing materials, thereby joining the pedestal, the heat spreader member, the insulating board, and the metal plate together, the active hard brazing materials being supplied such that the active hard brazing materials have a thickness ranging from 3 to 20 μm when the active hard brazing materials are melted, the active element being contained in an amount ranging from 50 to 2000 $\mu\text{g}/\text{cm}^2$, or preferably from ~~400~~426.8 to ~~1000~~1358 $\mu\text{g}/\text{cm}^2$.

Please rewrite the paragraph beginning on page 15, line 22 as follows:

The amount of Ti contained in each of the first through fourth active hard brazing materials 18, 20, 28, 30 should preferably be in the range from 50 to 2000 $\mu\text{g}/\text{cm}^2$ or more preferably be in the range from ~~400~~426.8 to ~~1000~~1358 $\mu\text{g}/\text{cm}^2$.

Please rewrite the paragraph beginning on page 16, line 21 as follows:

The bonding strength between the components depends on the amount of Ti contained in each of the first through fourth active hard brazing materials 18, 20, 28, 30. In the present embodiment, inasmuch as the amount of Ti contained in each of the first through fourth active hard brazing materials 18, 20, 28, 30 is preferably in the range from 50 to 2000 $\mu\text{g}/\text{cm}^2$ or more preferably in the range from ~~400~~426.8 to ~~1000~~1358 $\mu\text{g}/\text{cm}^2$, the absolute amount of Ti necessary to bond the components is sufficiently obtained for a required bonding strength.

Please rewrite the paragraph beginning on page 21, line 6 as follows:

As shown in FIG. 11, the amount of squeezed-out active hard brazing material 80 increases as the thicknesses of the supplied second through fourth active hard brazing materials 20, 28, 30 increase. It can also ~~been~~be seen that the difference between the amount of squeezed-out active hard brazing material 80 and the total weight of the second through fourth active hard brazing materials 20, 28, 30 when they were supplied, i.e., the amount of active hard brazing material 80 that contributed to the joining of the components, remains substantially unchanged.

Please rewrite the paragraph beginning on page 22, line 3 as follows:

In the fourth Experimental Example, there were prepared samples of a first type wherein ~~60Ag~~59.8Ag - 24Cu - 14In - 2.2Ti ("2.2Ti material") was employed as the first through fourth active hard brazing materials 18, 20, 28, 30 and the samples had respective thicknesses of 5 μm , 7.5 μm , 10 μm , 15 μm , and 20 μm when they were supplied, and samples of a second type wherein 58Ag - 22Cu - 13In - 7Ti ("7Ti

material”) was employed as the first through fourth active hard brazing materials 18, 20, 28, 30 and the samples had respective thicknesses of 5 μm , 7.5 μm , 10 μm , 15 μm , and 20 μm when they were supplied.

Please rewrite the paragraph beginning on page 22, line 13 as follows:

As shown in FIG. 12, each of the samples of the ~~first~~2.2Ti material and ~~second type~~the 7Ti material is constructed of the first active hard brazing material 18 that is placed on the pedestal 12 (having a thickness of 2.0 mm) made of Cu, the heat spreader member 14 (having a thickness of 3.0 mm) made of the C/Cu composite material which is placed on the first active hard brazing material 18, the second active hard brazing material 20 placed on the heat spreader member 14, the intermediate layer 24 (having a thickness of 1.0 mm) placed on the second active hard brazing material 20, the third active hard brazing material 28 placed on the intermediate layer 24, the insulating board 22 (having a thickness of 0.3 mm) of SN which is placed on the third active hard brazing material 28, the fourth active hard brazing material 30 placed on the insulating board 22, and the circuit board 26 (having a thickness of 0.2 mm) of Cu which is placed on the fourth active hard brazing material 30.

Please rewrite the paragraph beginning on page 23, line 3 as follows:

The samples of the ~~first~~2.2Ti material and ~~second type~~the 7Ti material were subjected to a peel test in which terminals were joined to the pedestal 12 and the circuit board 26 and the samples were simply pulled vertically. In the peel test, the samples were measured for a strength at the time the joined surfaces (active hard brazing material surfaces) were peeled off or a strength at the time the heat spreader member 14 was fractured. If the joined surfaces are peeled off, then it means that the bonding strength is too low, and if the heat spreader member 14 is fractured, then it means that the bonding strength is high and the joined surfaces are highly reliable.

Please rewrite the paragraph beginning on page 23, line 15 as follows:

The measured results of the fourth Experimental Example are shown in FIG. 13. In FIG. 13, the horizontal axis represents graduations for the thicknesses of the active hard brazing materials 18, 20, 28, 30 of the samples of the first-type 2.2Ti material, graduations for the thicknesses of the active hard brazing materials 18, 20, 28, 30 of the samples of the second-type 7Ti material, and graduations for amounts of contained Ti.

Please rewrite the paragraph beginning on page 23, line 22 as follows:

In FIG. 13, plots indicated by □ (:Empty Square) represent strengths at the time the joined surfaces of the samples of the first-type 2.2Ti material were peeled off, and plots indicated by ■ (:Filled Square) represent strengths at the time the heat spreader member 14 of the samples of the first-type 2.2Ti material were fractured. Similarly, plots indicated by ○ (:Empty Circle) represent strengths at the time the joined surfaces of the samples of the second-type 7Ti material were peeled off, and plots indicated by ● (:Filled Circle) represent strengths at the time the heat spreader member 14 of the samples of the second-type 7Ti material were fractured. The peeling off of each of the joined surfaces took place at the interface between the heat spreader member 14 and the pedestal 12 or the interface between the heat spreader member 14 and the intermediate layer 24.

Please rewrite the paragraph beginning on page 24, line 10 as follows:

It can be seen from the experimental results shown in FIG. 13 that with respect to the samples of the first-type 2.2Ti material, the joined surfaces were peeled off in all the thicknesses ranging from 5 to 20 μm , and the heat spreader member 14 was also fractured in the sample having the thickness of 20 μm .

Please rewrite the paragraph beginning on page 24, line 15 as follows:

It can also be seen that with respect to the samples of the second-type 7Ti

material, the joined surfaces were peeled off in the sample having the thickness of 5 μm , and that sample had a bonding strength of 20 MPa which is of a practical level, and the heat spreader member 14 was fractured, but the joined surfaces were not peeled off, in all the samples having the thicknesses ranging from 7.5 to 20 μm .

Please rewrite the paragraph beginning on page 24, line 22 as follows:

Of the samples of the ~~first-type~~ 2.2Ti material, the sample having the thickness of 20 μm contained about 420 $\mu\text{g}/\text{cm}^2$ of Ti. Of the samples of the ~~second-type~~ 7Ti material, the sample having the thickness of 5 μm contained about 350 $\mu\text{g}/\text{cm}^2$ of Ti. It can thus be seen that if the amount of contained Ti required to join the heat spreader member 14 and the pedestal 12 to each other and also to join the heat spreader member 14 and the intermediate layer 24 is 400 $\mu\text{g}/\text{cm}^2$ or greater, then the bonding strength that is achieved is of a practical level.

Please rewrite the paragraph beginning on page 25, line 4 as follows:

The fifth Experimental Example will be described below. The fifth Experimental Example employed samples of a ~~third-type~~ 60Ag-24.7Cu-14In-1.3Ti (“1.3Ti material”) and samples of a ~~fourth-type~~ the 2.2Ti material. Each of the samples of the third and fourth types is constructed of, as shown in FIG. 14, the first active hard brazing material 18 that is placed on the intermediate layer 24 (having a thickness of 1.0 mm) made of Cu, the insulating board 22 (having a thickness of 0.3 mm) of SN which is placed on the first active hard brazing material 18, the fourth active hard brazing material 30 that is placed on the insulating board 22, and the circuit board 26 (having a thickness of 0.2 mm) of Cu which is placed on the second active hard brazing material 20.

Please rewrite the paragraph beginning on page 26, line 6 as follows:

It can be seen from the results shown in FIG. 15 that with respect to the samples of the ~~third-type~~ 1.3Ti material, the joined surfaces were peeled off in the

sample having the thickness of 3 μm , and the insulating board 22 was fractured in those samples having the thicknesses ranging from 5 to 20 μm .

Please rewrite the paragraph beginning on page 26, line 11 as follows:

It can also be seen from the results shown in FIG. 15 that with respect to the samples of the ~~fourth-type~~ 2.2Ti material, the insulating board 22 was fractured in all those samples having the thicknesses ranging from 3 to 20 μm .

Please rewrite the paragraph beginning on page 26, line 15 as follows:

Of the samples of the ~~third-type~~ 1.3Ti material, the sample having the thickness of 3 μm contained about 38 $\mu\text{g}/\text{cm}^2$ of Ti, and the sample having the thickness of 5 μm contained about 63 $\mu\text{g}/\text{cm}^2$ of Ti. It can thus be seen that if the amount of contained Ti required to join the insulating board 22 of SN and the circuit board 26 of Cu to each other and also to join the insulating board 22 of SN and the intermediate layer 24 to each other is 50 $\mu\text{g}/\text{cm}^2$ or greater, then the bonding strength that is achieved is of a practical level.

Please rewrite the paragraph beginning on page 26, line 24 as follows:

The sixth Experimental Example will be described below. In the sixth Experimental Example, different thermal conductivities of heat spreader modules 10 with respect to different amounts of Ti contained in the first through fourth active hard brazing materials 18, 20, 28, 30 were observed. Specifically, the samples of ~~first~~ the 2.2Ti material and ~~second-type~~ the 7Ti material in the fourth Experimental Example were measured for thermal conductivities.

Please rewrite the paragraph beginning on page 27, line 5 as follows:

The measured results are illustrated in FIG. 16. In FIG. 16, plots indicated by \square (:Empty Square) represent thermal conductivities of the samples of the ~~first-type~~ 2.2Ti material, and plots indicated by \bullet (:Filled Circle) represent thermal conductivities of

the samples of the ~~second-type~~ 7Ti material.

Please rewrite the paragraph beginning on page 27, line 10 as follows:

All the samples of the ~~first-type~~ 2.2Ti material, and those samples of the ~~second-type~~ 7Ti material in which the first through fourth active hard brazing materials 18, 20, 28, 30 had respective thicknesses of 5 μm , 7.5 μm , 10 μm , and 15 μm when they were supplied had thermal conductivities of 350 W/mK or higher. However, those samples of the ~~second-type~~ 7Ti material in which the first through fourth active hard brazing materials 18, 20, 28, 30 had respective thicknesses of 20 μm (which can be converted into 1300 $\mu\text{g}/\text{cm}^2$ as the amount of contained Ti) when they were supplied had thermal conductivities less than 350 W/mK.

Please rewrite the paragraph beginning on page 30, line 17 as follows:

Those samples which had thermal conductivities less than ~~360~~ 350 W/mK include the sample 11 (whose Ti content was 1067 $\mu\text{g}/\text{cm}^2$, the sample 16 (whose Ti content was 873 $\mu\text{g}/\text{cm}^2$, the sample 17 (whose Ti content was 1309.5 $\mu\text{g}/\text{cm}^2$, the sample 21 (whose Ti content was 1018.5 $\mu\text{g}/\text{cm}^2$, the sample 22 (whose Ti content was 1358 $\mu\text{g}/\text{cm}^2$, and the sample 23 (whose Ti content was 2037 $\mu\text{g}/\text{cm}^2$).

Please rewrite the paragraph beginning on page 31, line 13 as follows:

It can be seen from the results of the seventh Experimental Example that if the thickness of the active hard brazing materials 18, 20, 28, 30 when they are supplied is less than 20 μm and the amount of contained Ti is in the range from ~~400~~ 426.8 to ~~1000~~ 1358 $\mu\text{g}/\text{cm}^2$, then it is possible for the heat spreader module 10 to have a thermal conductivity of 350 W/mK or higher and a sufficient bonding strength, and to be essential free of alloying in the intermediate layer 24.